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STRATEGIC OBJECTIVE #4

(Management of Productive, Life-Sustaining Natural Resources Strengthened)

**Voice from the South
Fr. Emeterio Barcelon**

Mindanao's water resources

(Source: Manila Bulletin Internet Edition – 9/16/05)

THE economic uses of water in large volumes are mainly in agriculture and in electric power production and both are often combined in the building of large dams. There are many other uses but they are minor in comparison to these two. Maria Cristina Falls in Northern Mindanao harnesses the water of Lanao Lake flowing down into the coast with a series of cascading dams with a potential of over 2,000 megawatts.

But there are other nearby places with potential of doing exactly the same thing. It is, however, only now because the price of petroleum has risen that there is interest to look at these mini hydro plants. Both the USAID and Canada Aid aided one of these, the Kiblangan Waterfall. These studies were done over five years ago but it is only now that it is being put into execution. It is only 10-mega watts but it has the potential of tripling this power generation if the first dam is successful.

There are many other potential mini hydro projects like the one in Gingoog City that is being revived. The one over the Cagayan River as well as the waterfalls in

Impasugong and Iligan City are all now ready for consideration for use to produce electric power. The demand is there with the growth and industrialization of the area. Over the past decade three processors of specialty steel have had to close down for lack of energy in the area. These Ferrochrome smelters could be revived instead of exporting the nickel and chromite.

Besides the mini hydro projects there are myriads of fast streams in Bukidnon and Surigao available to produce micro hydro projects of one mega watt or less. It is true we have bright sunlight suitable for electronic cells for electricity but the hydro projects do not need as much sophistication.

There was a time when the Bishops of the Philippines decreed the addition of special prayers to ask the Almighty to free us from storms but they soon revoked this decree when they realized that the storms were inconvenient but necessary to bring the rains needed for agriculture. The country is blessed with abundant rainfall. Two out of five of the highest world record rainfalls in a day, which were over 50 inches, were in the Philippines. The others were in Indonesia. The rains come every year to clean the atmosphere and from there water the land for agriculture. There is, however, the need to impound this water. Sec. Sebastian tried to do something in this regard. When the rains come, in the present practice, everybody starts to plant. The result is that they harvest, all come at the same time which puts a strain on the infrastructure and more importantly the prices go down because of the lumping of the produce. We can consume all the rice and corn, since we are net importers of grain, but it should not all come at the same time. Transporting and warehousing become a problem and the traders make the most of it to the detriment of the farmer.

If water is impounded then some of the farmers can delay their planting. To make these impounding holes is not difficult since there is cheap plastic lining available to reduce seepage to a minimum. The farmers can then realize a better income from their grain production. These ponds could also be used to raise fish like tilapia, an added income to the farmers.

Of course, there are more esoteric uses of water as in the search for deuterium. The Philippine deep off Surigao is as deep as the Himalayan mountains are high, over 29 thousand feet. It is said that because of the pressure of the column of water, the deep level water acquires another atom of Hydrogen, so that instead of H_2O , it has now become H_3O . But how to bring this water to the surface is the problem.

Then we also have local inventors who have produced rotation from ultra low head so that it can produce electricity from a river flowing at 3 miles per hour. Theoretically this is possible and they have done it in a small scale but the need is to prove it on a large working model. And for this they will need considerable high-risk funds. <emete rio_barcelon@yahoo.com>